

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/017,910	CHOI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	David S. Romeo	1647	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/07/2005.
2. ☒ The allowed claim(s) is/are 10-15,65 and 67-71.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the  
5 payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Quang Nguyen on June 9, 2005.

The application has been amended as follows:

10 IN THE SPECIFICATION:

In the preliminary amendment filed 07/08/2004, line 4, delete "all of which claim" and insert --which claims--.

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The following is an examiner's statement of reasons for allowance: The present application makes a distinction between antibodies that cross-react to different forms of TRANCE and antibodies that are specific for a single form of TRANCE (paragraph bridging pages 45-46). Thus, the claimed antibodies bind only TRANCE that comprises the amino acid  
20 sequence of SEQ ID NO: 2 and do not bind to any other form of TRANCE that does not comprise the amino acid sequence of SEQ ID NO: 2.

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Anderson (U. S. Patent No. 6,017,729) discloses human Receptor activator of nuclear factor kappa B ligand (RANKL), which is 99.5% identical to the present application's SEQ ID NO: 2, as indicated below (Qy = the present application's SEQ ID NO: 2) (Db = human RANKL):

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5  ; INFORMATION FOR SEQ ID NO: 13:
;   SEQUENCE CHARACTERISTICS:
;     LENGTH: 317 amino acids
;     TYPE: amino acid
;     TOPOLOGY: linear
10 ;   MOLECULE TYPE: protein
US-08-996-139-13

Query Match          99.5%; Score 1293; DB 3; Length 317;
Best Local Similarity 99.6%; Pred. No. 1.3e-137;
15 Matches 244; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy      1 QMDPNRISEGDGTHCIYRILRLHENADFQDTTLESQDTKLIPDSCRRIKQAFQGAVQKELQ 60
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
20 Db      73 QMDPNRISEGDGTHCIYRILRLHENADFQDTTLESQDTKLIPDSCRRIKQAFQGAVQKELQ 132
Qy      61 HIVGSQHIRAEKAMVDGSLDLAKRSKLEAQPFAHLTINATDIPSGSHKVSLSWYHDRG 120
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      133 HIVGSQHIRAEKAMVDGSLDLAKRSKLEAQPFAHLTINATDIPSGSHKVSLSWYHDRG 192
25 Qy      121 WGKISNMTFSNGKLIVNQDGFYYLYANICFRHHETSGDLATEYLQLMVYVTKTSIKIPSS 180
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      193 WAKISNMTFSNGKLIVNQDGFYYLYANICFRHHETSGDLATEYLQLMVYVTKTSIKIPSS 252
30 Qy      181 HTLMKGGSTKYWSGNSEFHFYSINVGGFKLRSGEESIEVSNPSLLDPDQDATYFGAFK 240
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      253 HTLMKGGSTKYWSGNSEFHFYSINVGGFKLRSGEESIEVSNPSLLDPDQDATYFGAFK 312
Qy      241 VRDID 245
      |||||
35 Db      313 VRDID 317.

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See Example 8.

Anderson also discloses monoclonal antibodies against RANKL and their use in an ELISA (Example 10). However, Anderson does not teach or suggest an antibody that is specific for a single form of TRANCE, wherein said TRANCE comprises the amino acid sequence of SEQ ID NO: 2, and wherein said antibody does not bind to any other form of TRANCE.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

ANY INQUIRY CONCERNING THIS COMMUNICATION OR EARLIER COMMUNICATIONS FROM THE EXAMINER SHOULD BE DIRECTED TO DAVID S. ROMEO WHOSE TELEPHONE NUMBER IS (571) 272-0890. THE EXAMINER CAN NORMALLY BE REACHED ON MONDAY THROUGH FRIDAY FROM 7:30 A.M. TO 4:00 P.M. IF ATTEMPTS TO REACH THE EXAMINER BY TELEPHONE ARE UNSUCCESSFUL, THE EXAMINER'S SUPERVISOR, BRENDA BRUMBACK, CAN BE REACHED ON (571) 272-0961.

IF SUBMITTING OFFICIAL CORRESPONDENCE BY FAX, APPLICANTS ARE ENCOURAGED TO SUBMIT OFFICIAL CORRESPONDENCE TO THE CENTRAL FAX NUMBER FOR OFFICIAL CORRESPONDENCE, WHICH IS (571) 273-8300.

CUSTOMERS ARE ALSO ADVISED TO USE CERTIFICATE OF FACSIMILE PROCEDURES WHEN SUBMITTING A REPLY TO A NON-FINAL OR FINAL OFFICE ACTION BY FACSIMILE (SEE 37 CFR 1.6 AND 1.8).

FAXED DRAFT OR INFORMAL COMMUNICATIONS SHOULD BE DIRECTED TO THE EXAMINER AT (571) 273-0890.

ANY INQUIRY OF A GENERAL NATURE OR RELATING TO THE STATUS OF THIS APPLICATION OR PROCEEDING SHOULD BE DIRECTED TO THE GROUP RECEPTIONIST WHOSE TELEPHONE NUMBER IS (703) 308-0196.



DAVID ROMEO  
PRIMARY EXAMINER  
ART UNIT 1647

DSR  
JUNE 8, 2005